

ABSTRACT

An attenuator or conditioner apparatus is provided that is used in conjunction with an optical transmitter, receiver or transceiver module. The apparatus functions to attenuate or condition optical energy emitted from optoelectronic devices. An apparatus for attenuating the optical output of an optoelectronic connector comprises: (1) a mounting surface; (2) an array of optoelectronic devices adapted to the mounting surface, the optoelectronic devices having at least a first end; (3) an array of optical elements, the array of optical elements having at least a first end; (4) the first end of the array of optical elements optically aligned with the first end of the array of optoelectronic devices in such a manner that one or more optical elements is optically aligned to one or more optoelectronic devices; (5) an optical path extending from the first end of the array of optoelectronic devices, proceeding into the array of optical elements and ending at a second end of the array of optical elements; and (6) an attenuator in the optical path, where the attenuator functions to attenuate the optical energy emitted from the array of optoelectronic devices. Alternatively, a conditioner may be adapted in the optical path, where the conditioner functions to condition the launch of the optical energy into the fibers by conditioning the optical energy emitted from the array of optoelectronic devices.